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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,518	03/19/2004	Charles David Carlson JR.	DF1246US-C	7503

7590 10/20/2004

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EXAMINER

CHEN, VIVIAN

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No. 10/804,518	Applicant(s) CARLSON ET AL.	
	Examiner Vivian Chen	Art Unit 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-9 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-9 and 14-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-5, 10-13, 22-31 have been cancelled by Applicant.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 6-9, 14-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 6,713,185. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent claims encompass the recited films having layers with different molecular orientation profiles, and the recited methods of making such films.

Claim Rejections - 35 USC § 103

1. Claims 6-9, 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over CANTERINO (US 4,475,971) in view of BENOIT ET AL (US 5,618,630).

CANTERINO '971 discloses a cross-laminated film comprising of two film layers, wherein the main orientation direction of one film layer differs from the main orientation direction of the adjacent film layer, wherein the laminate is formed by slitting a cast film sheet down the middle to form film layers, followed by layering said film layers so that the orientation of each film layer differs from the adjacent layer (Figure 2; lines 23-41, col. 2) as recited in claims 6, 14-17, 19, wherein the film layers comprise polyester (lines 50-52, col. 1) as recited in claim 18. However, the reference does not explicitly disclose the use of biaxially oriented films.

BENOIT ET AL discloses that it is well known in the art to use biaxially oriented polymeric film having a preferential orientation direction in cross-laminated film structures in order to obtain films with improved flatness and uniformity (lines 43-63, col. 4).

It would have been obvious at the time the invention was made to introduce some degree of biaxial orientation in the films of CANTERINO '971 in order to improve film uniformity, flatness and mechanical properties. One of ordinary skill in would use known methods and film features to ascertain and mark the orientation direction of each film layer as indicated in claims 7-9 in order to ensure the proper positioning to produce the desired cross-lamination. It would have been obvious to select the optical properties of the film layers (e.g., transparency) (claims 6, 14) in order to obtain the visual appearance and/or aesthetic qualities desired for specific applications. Regarding claim

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6, the recitation of a "cast polymer film" is a product-by-process limitation and is not further limiting in as so far as the structure of the product is concerned. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. ***The patentability of a product does not depend on its method of production.*** If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." [emphasis added] *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP 2113. Once a product appearing substantially identical is found, the burden shifts to applicant to show a ***unobvious*** difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1993). Casting is a conventional method of forming a flat film (claim 14).

2. Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over PLANETA (US 5,350,471) in view of BENOIT ET AL (US 5,618,630).

PLANETA discloses a cross-laminated film comprising of two film layers, wherein the main orientation direction of one film layer differs from the main orientation direction of the adjacent film layer (Figure 1; lines 1-10, col. 3) as recited in claims 14, 19, wherein the film layers comprise polyester (lines 25-26, col. 2) as recited in claim 18. However, the reference does not explicitly disclose the use of biaxially oriented films.

BENOIT ET AL discloses that it is well known in the art to use biaxially oriented polymeric film having a preferential orientation direction in cross-laminated film

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structures in order to obtain films with improved flatness and uniformity (lines 43-63, col. 4).

It would have been obvious at the time the invention was made to introduce some degree of biaxial orientation in the films of PLANETA in order to improve film uniformity, flatness and mechanical properties. It would have been obvious to identify portions of specific film orientation and laminate such portions together in an continuous in-line process as indicated in claim 36 in order to reduce handling and production time. It would have been obvious to select the optical properties of the film layers (e.g., transparency) (claims 6, 14) in order to obtain the visual appearance and/or aesthetic qualities desired for specific applications.

3. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over:
- (a) CANTERINO (US 4,475,971) in view of BENOIT ET AL (US 5,618,630), or
 - (b) PLANETA (US 5,350,471) in view of BENOIT ET AL (US 5,618,630),
- as applied to claim 14 above, and further in view of MORAN (US 5,091,258).

CANTERINO and BENOIT ET AL and PLANETA as relied upon above.

MORAN discloses that it is well known in the art to adhesively adhere transparent polymeric films to glass substrates in order to enhance impact and penetration resistance (lines 25-50, col. 1; Figure 1).

It would have been obvious at the time the invention was made to apply a cross-laminated film as disclosed in CANTERINO '971 or PLANETA which is transparent to glass substrates in order to improve the durability and safety of such laminates.

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Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivian Chen whose telephone number is (571) 272-1506. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones, can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

The General Information telephone number for Technology Center 1700 is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 17, 2004



Vivian Chen
Primary Examiner
Art Unit 1773